

Ag. Waste Application and Excavated Ponds
McPherson County, South Dakota

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation.)

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value
3A: Bowdle-----	85	Very limited Filtering capacity	1.00	Very limited Deep to water	1.00
3B: Bowdle-----	85	Very limited Filtering capacity	1.00	Very limited Deep to water	1.00
5A: Bowbells-----	85	Somewhat limited Restricted permeability	0.30	Very limited Deep to water	1.00
5B: Bowbells-----	85	Somewhat limited Restricted permeability	0.30	Very limited Deep to water	1.00
6: Arnegard-----	85	Not limited		Very limited Deep to water	1.00
7: Bearden-----	85	Somewhat limited Depth to saturated zone Sodium content	0.84	Somewhat limited Slow refill	0.43
			0.08	Cutbanks cave Deep to water	0.10 0.07
8: Rentill-----	85	Somewhat limited Droughty	0.08	Very limited Deep to water	1.00
9A: Bearpaw-----	85	Very limited Restricted permeability	1.00	Very limited Deep to water	1.00
9B: Bearpaw-----	85	Very limited Restricted permeability	1.00	Very limited Deep to water	1.00

Ag. Waste Application and Excavated Ponds -- continued
McPherson County, South Dakota

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		Rating class and limiting features	Value	Rating class and limiting features	Value
9C: Bearpaw-----	85	Very limited Restricted permeability	1.00	Very limited Deep to water	1.00
10: Brantford-----	85	Very limited Filtering capacity Droughty	1.00 0.20	Very limited Deep to water	1.00
11A: Bearpaw-----	50	Very limited Restricted permeability	1.00	Very limited Deep to water	1.00
Greenway-----	35	Very limited Restricted permeability	1.00	Very limited Deep to water	1.00
11B: Bearpaw-----	45	Very limited Restricted permeability	1.00	Very limited Deep to water	1.00
Greenway-----	35	Very limited Restricted permeability	1.00	Very limited Deep to water	1.00
Vida-----	4	Not Rated Not Rated Restricted permeability Low adsorption Cobble content	1.00 1.00 1.00	Very limited Deep to water	1.00
13E: Zahl-----	50	Somewhat limited Slope Restricted permeability	0.63 0.30	Very limited Deep to water	1.00
Kloten-----	25	Very limited Depth to bedrock Droughty Slope Runoff limitation	1.00 1.00 1.00 0.40	Very limited Deep to water	1.00

Ag. Waste Application and Excavated Ponds -- continued
McPherson County, South Dakota

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value
14D: Vida-----	85	Not Rated Not Rated Restricted permeability Low adsorption Cobble content Slope	 1.00 1.00 1.00 0.04	Very limited Deep to water	1.00
15A: Williams-----	50	Somewhat limited Restricted permeability	0.30	Very limited Deep to water	1.00
Bowbells-----	30	Somewhat limited Restricted permeability	0.30	Very limited Deep to water	1.00
15B: Williams-----	60	Somewhat limited Restricted permeability	0.30	Very limited Deep to water	1.00
Bowbells-----	20	Somewhat limited Restricted permeability	0.30	Very limited Deep to water	1.00
15C: Williams-----	55	Somewhat limited Restricted permeability	0.30	Very limited Deep to water	1.00
Bowbells-----	25	Somewhat limited Restricted permeability	0.30	Very limited Deep to water	1.00
16A: Williams-----	50	Somewhat limited Restricted permeability	0.30	Very limited Deep to water	1.00
Bowbells-----	20	Somewhat limited Restricted permeability	0.30	Very limited Deep to water	1.00

Ag. Waste Application and Excavated Ponds -- continued
McPherson County, South Dakota

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Tonka-----	15	Very limited Restricted permeability Depth to saturated zone Ponding Leaching limitation	1.00 1.00 1.00 0.50	Somewhat limited Slow refill Cutbanks cave	0.30 0.10
16B: Williams-----	45	Somewhat limited Restricted permeability	0.30	Very limited Deep to water	1.00
Bowbells-----	20	Somewhat limited Restricted permeability	0.30	Very limited Deep to water	1.00
Tonka-----	15	Very limited Restricted permeability Depth to saturated zone Ponding Leaching limitation	1.00 1.00 1.00 0.50	Somewhat limited Slow refill Cutbanks cave	0.30 0.10
16C: Williams-----	45	Somewhat limited Restricted permeability	0.30	Very limited Deep to water	1.00
Bowbells-----	20	Somewhat limited Restricted permeability	0.30	Very limited Deep to water	1.00
Parnell-----	15	Very limited Restricted permeability Ponding Depth to saturated zone Leaching limitation	1.00 1.00 1.00 0.50	Somewhat limited Slow refill Cutbanks cave	0.95 0.10

Ag. Waste Application and Excavated Ponds -- continued
McPherson County, South Dakota

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value
17B: Vida-----	45	Not Rated Not Rated Restricted permeability Low adsorption Cobble content	 1.00 1.00 1.00	Very limited Deep to water	 1.00
Williams-----	40	Somewhat limited Restricted permeability	 0.30	Very limited Deep to water	 1.00
17C: Vida-----	40	Not Rated Not Rated Restricted permeability Low adsorption Cobble content Slope	 1.00 1.00 1.00 0.37	Very limited Deep to water	 1.00
Williams-----	30	Somewhat limited Restricted permeability	 0.30	Very limited Deep to water	 1.00
Bowbells-----	20	Somewhat limited Restricted permeability	 0.30	Very limited Deep to water	 1.00
17D: Vida-----	55	Not Rated Not Rated Restricted permeability Low adsorption Cobble content Slope	 1.00 1.00 1.00 0.37	Very limited Deep to water	 1.00
Zahl-----	25	Somewhat limited Slope Restricted permeability	 0.37 0.30	Very limited Deep to water	 1.00
17E: Vida-----	45	Not Rated Not Rated Slope Restricted permeability Low adsorption Cobble content	 1.00 1.00 1.00 1.00	Very limited Deep to water	 1.00

Ag. Waste Application and Excavated Ponds -- continued
McPherson County, South Dakota

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Zahill-----	35	Very limited Slope Restricted permeability	1.00 0.30	Very limited Deep to water	1.00
18A: Williams-----	55	Somewhat limited Restricted permeability	0.30	Very limited Deep to water	1.00
Niobell-----	30	Very limited Restricted permeability Sodium content	1.00 0.82	Somewhat limited Slow refill Deep to water Cutbanks cave Salty water	0.95 0.90 0.10 0.01
20A: Lehr-----	90	Very limited Filtering capacity Droughty	1.00 0.78	Very limited Deep to water	1.00
20B: Lehr-----	85	Very limited Filtering capacity Droughty	1.00 0.78	Very limited Deep to water	1.00
21A: Cavour-----	50	Very limited Restricted permeability Salinity Runoff limitation Sodium content	1.00 0.50 0.40 0.18	Somewhat limited Slow refill Deep to water Salty water Cutbanks cave	0.99 0.90 0.78 0.10
Miranda-----	35	Very limited Restricted permeability Sodium content Salinity Runoff limitation	1.00 1.00 0.50 0.40	Very limited Slow refill Deep to water Salty water Cutbanks cave	1.00 0.90 0.50 0.10
22A: Niobell-----	45	Very limited Restricted permeability Sodium content	1.00 0.82	Somewhat limited Slow refill Deep to water Cutbanks cave Salty water	0.95 0.90 0.10 0.01

Ag. Waste Application and Excavated Ponds -- continued
McPherson County, South Dakota

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Miranda-----	30	Very limited Restricted permeability Sodium content Salinity Runoff limitation	1.00 1.00 0.50 0.40	Very limited Slow refill Deep to water Salty water Cutbanks cave	1.00 0.90 0.50 0.10
23A: Noonan Variant-----	85	Very limited Restricted permeability Filtering capacity Sodium content Runoff limitation Salinity	1.00 1.00 0.82 0.40 0.01	Very limited Deep to water	1.00
24A: Niobell-----	45	Very limited Restricted permeability Sodium content	1.00 0.82	Somewhat limited Slow refill Deep to water Cutbanks cave Salty water	0.95 0.90 0.10 0.01
Noonan-----	35	Very limited Restricted permeability Sodium content Runoff limitation	1.00 0.82 0.40	Very limited Slow refill Deep to water Cutbanks cave Salty water	1.00 0.90 0.10 0.01
25: Miranda-----	55	Very limited Restricted permeability Sodium content Salinity Runoff limitation	1.00 1.00 0.50 0.40	Very limited Slow refill Deep to water Salty water Cutbanks cave	1.00 0.90 0.50 0.10
Heil-----	30	Very limited Restricted permeability Depth to saturated zone Ponding Salinity Runoff limitation	1.00 1.00 1.00 0.50 0.40	Somewhat limited Salty water Slow refill Cutbanks cave	0.50 0.30 0.10

Ag. Waste Application and Excavated Ponds -- continued
McPherson County, South Dakota

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value
26: Cresbard-----	50	Somewhat limited Restricted permeability Sodium content	0.89 0.18	Somewhat limited Slow refill Deep to water Cutbanks cave Salty water	0.95 0.90 0.10 0.01
Cavour-----	35	Very limited Restricted permeability Salinity Runoff limitation Sodium content	1.00 0.50 0.40 0.18	Somewhat limited Slow refill Deep to water Salty water Cutbanks cave	0.99 0.90 0.78 0.10
27B: Lehr-----	55	Very limited Filtering capacity Droughty	1.00 0.78	Very limited Deep to water	1.00
Bowdle-----	35	Very limited Filtering capacity	1.00	Very limited Deep to water	1.00
29: Exline-----	55	Very limited Restricted permeability Sodium content Depth to saturated zone Salinity Runoff limitation	1.00 1.00 0.84 0.50 0.40	Very limited Cutbanks cave Slow refill Salty water Deep to water	1.00 0.95 0.50 0.07
Harmony-----	35	Somewhat limited Restricted permeability	0.30	Very limited Deep to water	1.00
30: Letcher-----	40	Very limited Restricted permeability Runoff limitation Sodium content Salinity	1.00 0.40 0.02 0.01	Somewhat limited Deep to water Slow refill Cutbanks cave Salty water	0.99 0.95 0.10 0.01
Parshall-----	35	Not limited		Very limited Deep to water	1.00

Ag. Waste Application and Excavated Ponds -- continued
McPherson County, South Dakota

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value
31: Harmony-----	85	Somewhat limited Restricted permeability	0.30	Very limited Deep to water	1.00
32: Harmony-----	55	Somewhat limited Restricted permeability	0.30	Very limited Deep to water	1.00
Exline-----	30	Very limited		Very limited	
		Restricted	1.00	Cutbanks cave	1.00
		permeability			
		Sodium content	1.00	Slow refill	0.95
		Depth to	0.84	Salty water	0.50
		saturated zone			
		Salinity	0.50	Deep to water	0.07
		Runoff limitation	0.40		
37: Straw-----	85	Very limited Flooding	1.00	Very limited Deep to water	1.00
38: Regan-----	85	Very limited		Somewhat limited	
		Depth to	1.00	Slow refill	0.43
		saturated zone			
		Flooding	0.60	Cutbanks cave	0.10
40A: Mondamin-----	85	Somewhat limited Restricted permeability	0.89	Very limited Deep to water	1.00
40B: Mondamin-----	85	Somewhat limited Restricted permeability	0.89	Very limited Deep to water	1.00
43C: Wabek-----	50	Very limited		Very limited	
		Filtering	1.00	Deep to water	1.00
		capacity			
		Droughty	1.00		
		Leaching	0.45		
		limitation			
		Slope	0.37		
Bowdle-----	40	Very limited Filtering capacity	1.00	Very limited Deep to water	1.00

Ag. Waste Application and Excavated Ponds -- continued
McPherson County, South Dakota

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		Rating class and limiting features	Value	Rating class and limiting features	Value
44D: Wabek-----	85	Very limited Filtering capacity Droughty Slope Leaching limitation	1.00 1.00 0.84 0.45	Very limited Deep to water	1.00
45B: Wabek-----	50	Very limited Filtering capacity Droughty Leaching limitation	1.00 1.00 0.45	Very limited Deep to water	1.00
Lehr-----	30	Very limited Filtering capacity Droughty	1.00 0.78	Very limited Deep to water	1.00
52B: Lihen-----	50	Very limited Filtering capacity Leaching limitation Droughty	1.00 0.45 0.01	Very limited Deep to water	1.00
Parshall-----	30	Not limited		Very limited Deep to water	1.00
52D: Lihen-----	85	Very limited Filtering capacity Slope Leaching limitation Droughty	1.00 0.84 0.45 0.01	Very limited Deep to water	1.00
54B: Tansem-----	55	Not limited		Very limited Deep to water	1.00
Roseglen-----	30	Not limited		Very limited Deep to water	1.00

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McPherson County, South Dakota

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		Rating class and limiting features	Value	Rating class and limiting features	Value
55A: Parshall-----	45	Not limited	0.63	Very limited Deep to water	1.00
Tally-----	35	Not limited		Very limited Deep to water	1.00
55B: Tally-----	85	Not limited		Very limited Deep to water	1.00
56D: Tansem Variant-----	85	Somewhat limited Slope		Very limited Deep to water	1.00
57A: Bryant-----	55	Not limited	0.30	Very limited Deep to water	1.00
Grassna-----	25	Not limited		Somewhat limited Deep to water Slow refill Cutbanks cave	0.90 0.30 0.10
57B: Bryant-----	55	Not limited		Very limited Deep to water	1.00
Grassna-----	25	Not limited		Somewhat limited Deep to water Slow refill Cutbanks cave	0.90 0.30 0.10
57C: Bryant-----	85	Not limited	1.00	Very limited Deep to water	1.00
58B: Temvik-----	35	Somewhat limited Restricted permeability		Very limited Deep to water	1.00
Grassna-----	30	Not limited		Somewhat limited Deep to water Slow refill Cutbanks cave	0.90 0.30 0.10
Bearpaw-----	25	Very limited Restricted permeability		Very limited Deep to water	1.00

Ag. Waste Application and Excavated Ponds -- continued
McPherson County, South Dakota

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value
62: Hamerly-----	85	Somewhat limited Depth to saturated zone Restricted permeability	0.84 0.30	Somewhat limited Slow refill Cutbanks cave Deep to water	0.30 0.10 0.07
64: Grassna-----	85	Not limited		Somewhat limited Deep to water Slow refill Cutbanks cave	0.90 0.30 0.10
65: Grail-----	85	Somewhat limited Restricted permeability	0.30	Very limited Deep to water	1.00
72: Ranslo-----	45	Very limited Restricted permeability Depth to saturated zone Flooding Runoff limitation	1.00 1.00 0.60 0.40	Somewhat limited Slow refill Cutbanks cave Salty water Deep to water	0.95 0.10 0.01 0.01
Harriet-----	40	Very limited Restricted permeability Depth to saturated zone Sodium content Flooding Salinity	1.00 1.00 1.00 0.60 0.50	Somewhat limited Salty water Slow refill Cutbanks cave	0.50 0.30 0.10
75: Tonka-----	50	Very limited Restricted permeability Depth to saturated zone Ponding Leaching limitation	1.00 1.00 1.00 0.50	Somewhat limited Slow refill Cutbanks cave	0.30 0.10

Ag. Waste Application and Excavated Ponds -- continued
McPherson County, South Dakota

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Nishon-----	35	Very limited Restricted permeability Depth to saturated zone Ponding Leaching limitation	1.00 1.00 1.00 0.50	Somewhat limited Slow refill Cutbanks cave	0.30 0.10
76: Parnell-----	90	Very limited Restricted permeability Ponding Depth to saturated zone Leaching limitation	1.00 1.00 1.00 0.50	Somewhat limited Slow refill Cutbanks cave	0.95 0.10
77: Nishon-----	50	Very limited Restricted permeability Depth to saturated zone Ponding Leaching limitation	1.00 1.00 1.00 0.50	Somewhat limited Slow refill Cutbanks cave	0.30 0.10
Heil-----	40	Very limited Restricted permeability Depth to saturated zone Ponding Salinity Runoff limitation	1.00 1.00 1.00 0.50 0.40	Somewhat limited Salty water Slow refill Cutbanks cave	0.50 0.30 0.10
80: Heil-----	95	Very limited Restricted permeability Depth to saturated zone Ponding Salinity Runoff limitation	1.00 1.00 1.00 0.50 0.40	Somewhat limited Salty water Slow refill Cutbanks cave	0.50 0.30 0.10

Ag. Waste Application and Excavated Ponds -- continued
McPherson County, South Dakota

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value
82: Stirum-----	85	Very limited Depth to saturated zone Sodium content Ponding Filtering capacity Leaching limitation	1.00 1.00 1.00 1.00 0.70	Very limited Cutbanks cave Salty water	1.00 0.01
85: Ranslo-----	90	Very limited Restricted permeability Depth to saturated zone Flooding Runoff limitation	1.00 1.00 0.60 0.40	Somewhat limited Slow refill Cutbanks cave Salty water Deep to water	0.95 0.10 0.01 0.01
86: Harriet-----	90	Very limited Restricted permeability Depth to saturated zone Sodium content Flooding Salinity	1.00 1.00 1.00 0.60 0.50	Somewhat limited Salty water Slow refill Cutbanks cave	0.50 0.30 0.10
87: Marysland-----	90	Very limited Depth to saturated zone Filtering capacity Leaching limitation	1.00 1.00 0.70	Very limited Cutbanks cave	1.00
88: Divide-----	85	Very limited Filtering capacity Depth to saturated zone	1.00 0.84	Very limited Cutbanks cave Deep to water	1.00 0.07
97: Regan-----	90	Very limited Depth to saturated zone Flooding	1.00 1.00	Somewhat limited Slow refill Cutbanks cave	0.43 0.10

Ag. Waste Application and Excavated Ponds -- continued
McPherson County, South Dakota

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		Rating class and limiting features	Value	Rating class and limiting features	Value
98: Vallars-----	85	Very limited Depth to saturated zone Restricted permeability	1.00 0.30	Somewhat limited Slow refill Cutbanks cave	0.95 0.10
99: Orthents, Gravelly--	99	Very limited Slope Filtering capacity Droughty Leaching limitation	1.00 1.00 0.71 0.45	Very limited Deep to water	1.00
100: Parnell-----	90	Very limited Restricted permeability Ponding Depth to saturated zone Leaching limitation	1.00 1.00 1.00 0.50	Somewhat limited Slow refill Cutbanks cave	0.95 0.10
w: Water (less Than 40 Acres)-----	100	Not rated		Not rated	

